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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,810	08/08/2001	Sok Joo Lee	049128-5025	9929
9629	7590	06/30/2005	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			SEFER, AHMED N	
			ART UNIT	PAPER NUMBER
			2826	
DATE MAILED: 06/30/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/923,810

Applicant(s)

LEE ET AL.

Examiner

A. Sefer

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-20 is/are pending in the application.
4a) Of the above claim(s) 8-14 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-6 and 15-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 4/4/2005 have been fully considered but they are not persuasive.
2. Applicants argue that Song et al. ("Song") US PG-Pub 20020130324 and Jeong ("Jeong") USPN 6,081,308 do not disclose the claimed elements either explicitly or inherently. Specifically, Applicants argue that Song and Jeong teach two distinctly different material layers having no common shared material(s).
3. In response to the argument that Song teaches using two distinctly different material layers having no common shared material(s), Song discloses Cr, Mo or Mo alloy for the first layer and Al and Al alloy -- Al alloy includes Mo, W, etc. -- for the second layer (see pars. 0078 and 0093). Similarly, Jeong discloses Al or Al alloy 221 -- Al alloy includes Mo, W, etc --and MoW 222 (col. 9, lines 55-65 and the paragraph bridging col. 9 and 10).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Song.

Art Unit: 2826

Song discloses (see figs. 4, 11, 19B and pars. 0079, 0093 and 0111) a liquid crystal display device, wherein gate conductive lines are in direct contact with a transparent electrode 67, each of the gate conductive lines comprising a first metal layer having a thickness with the range recited in the claim (as in claim 3) including an aluminum-alloy (as in claim 2) formed from a first metal; and an alloy layer formed from an alloy of the first metal and another metal including molybdenum (as in claim 5) being disposed at an upper portion of the first metal layer.

As for claim 4, Song discloses an alloy layer formed from an alloy including a first metal and a second metal deposited onto the first metal layer.

As to the heat generated alloy layer or subsequent removal of the second metal recited in claims 1 and 4 respectively, they read to a process and "product by process" claims are directed to the product per se, no matter how actually made, *In re Hirao*, 190 USPQ 15 at 17 (footnote 3). See also *In re Brown*, 173 USPQ 685 and *In re Thorpe*, 227 USPQ 964, 966. Therefore, the way the product was made does not carry any patentable weight as long as the claims are directed to a device. Further, note that the applicant has the burden of proof in such cases, as the above case law makes clear. Also see MPEP 2113.

As for claim 6, Song discloses said gate conductive line including one of a gate pad 24, gate line 22 and a gate electrode 26.

6. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim et al. ("Kim") US PG-Pub 2003/0085404.

Kim discloses (see fig. 2 and pars. 0043, 0047 and 0083) a liquid crystal display device, wherein gate conductive lines are in indirect contact with a transparent electrode 84, each of the gate conductive lines comprising a first metal layer including an aluminum-alloy (as in claim 2)

Art Unit: 2826

formed from a first metal; and an alloy layer formed from an alloy of the first metal and another metal including molybdenum (as in claim 5) being disposed at an upper portion of the first metal layer.

As for claim 4, Kim discloses an alloy layer formed from an alloy including a first metal and a second metal deposited onto the first metal layer.

As to the heat generated alloy layer or subsequent removal of the second metal recited in claims 1 and 4 respectively, they read to a process and "product by process" claims are directed to the product per se, no matter how actually made, *In re Hirao*, 190 USPQ 15 at 17 (footnote 3). See also *In re Brown*, 173 USPQ 685 and *In re Thorpe*, 227 USPQ 964, 966. Therefore, the way the product was made does not carry any patentable weight as long as the claims are directed to a device. Further, note that the applicant has the burden of proof in such cases, as the above case law makes clear. Also see MPEP 2113.

As for claim 3, the specification contains no disclosure of either the critical nature of the claimed arrangement or any unexpected results arising therefrom. Where patentability is said to be based upon particular chosen dimensions or upon another variable recited in a claim, the applicant must show that the chosen dimensions are critical. *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

As for claim 6, Kim discloses said gate conductive line including one of a gate pad 24, gate line 22 and a gate electrode 26.

7. Claims 15-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Jeong et al. ("Jeong") USPN 6,081,308.

Art Unit: 2826

Jeong discloses in figs. 11-25 a liquid crystal display device, comprising: a substrate; a gate electrode 210 disposed on the substrate; a gate pad 220 disposed on the substrate; an insulating film 26/300 disposed on the gate electrode and the gate pad; an active layer 28/ 400 disposed on the insulating film above the gate electrode; an ohmic contact layer 30/510/520 disposed on portions of the active layer; a source electrode 32a/610 and a drain electrode 32b/620 disposed on the ohmic contact layer; a passivation layer 34/700 disposed on the source and drain electrodes or disposed on the insulating layer (as in claim 19), covering side surfaces of the source and drain electrodes (as in claim 18) or contacting a portion of the active layer between the source and drain electrodes (as in claim 20); a pixel electrode 36/800 disposed on the passivation layer and contacting the drain electrode; and a transparent electrode 36a/810 disposed on the passivation layer or disposed within a via formed through the passivation layer and insulating film (as in claim 17) contacting the gate pad or a second layer of the gate pad (as in claim 16), wherein the gate electrode and the gate pad both include a first layer formed of a first metal 24/221 and a second layer 26/222 formed of an alloy of the first metal and a second metal disposed at an entire upper surface of the first layer directly contacting the transparent electrode.

As to the heat generated alloy recited in claim 15, it reads to a process and "product by process" claims are directed to the product per se, no matter how actually made, *In re Hirao*, 190 USPQ 15 at 17 (footnote 3). See also *In re Brown*, 173 USPQ 685 and *In re Thorpe*, 227 USPQ 964, 966. Therefore, the way the product was made does not carry any patentable weight as long as the claims are directed to a device. Further, note that the applicant has the burden of proof in such cases, as the above case law makes clear. Also see MPEP 2113.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Sefer whose telephone number is (571) 272-1921.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 2826

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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June 26, 2005